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**BEFORE THE SUBCOMMITTEE ON NUTRITION AND HORTICULTURE OF THE  
COMMITTEE ON AGRICULTURE AND THE SUBCOMMITTEE ON WATER  
RESOURCES AND ENVIRONMENT OF THE COMMITTEE ON TRANSPORTATION  
AND INFRASTRUCTURE**

**JOINT HEARING ON**

**"THE REGULATORY BURDENS POSED BY THE NATIONAL COTTON COUNCIL v.  
EPA (6TH. CIR. 2009) AND TO REVIEW RELATED DRAFT LEGISLATION"**

**FEBRUARY 16, 2011**

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**STATEMENT OF MR. DOMINICK V. NINIVAGGI  
ACCOMPANIED BY DAVID BROWN**

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I am Dominick V. Ninivaggi, Superintendent Division of Vector Control Suffolk County Department of Public Works, New York. I am accompanied by David Brown, Manager of the Sacramento-Yolo Mosquito and Vector Control District, Elk Grove California. I have been involved in mosquito vector control for more than 24 years. David has similarly been involved in California in excess of 27 years.

Prior to joining Suffolk Vector Control in 1994, I held positions as an Oceanographer for the Army Corps of Engineers and as a Marine Resources Specialist for the New York State Department of Environmental Conservation. I hold a Bachelors of Science degree in Biology from Southampton College and a Masters Degree in Marine Environmental Sciences from Stony Brook University. My background in environmental science has proven very useful in directing Suffolk County's program because much of our activities center on coastal wetlands. The County has a strong commitment to protecting those wetlands and other natural resources, while still protecting the public from mosquitoes and the diseases they transmit. Part of that

commitment is the County's \$4.5 million Vector Control and Wetlands Management Long Term Plan and Generic Environmental Impact Statement. The Plan is a comprehensive study of the public health and environmental effects of the County's mosquito control program and associated wetland management activities. In addition to playing a major role in the preparation of this environmental plan, I have also participated in the development of the national and New York State West Nile Virus response plans.

David Brown has been employed with the Sacramento-Yolo Mosquito and Vector Control District ("SYMVCD") since 1983. He has been Manager of the District since 1996. He received his Bachelors Degree in Environmental Studies from California State University of Sacramento. He is a Past President of both the American Mosquito Control Association (AMCA) and the California Mosquito and Vector Control Association. Under his management the SYMVCD has received the prestigious IPM Innovator Award for the development of a comprehensive integrated mosquito management program and a premiere public outreach program. He has worked to harmonize the development of waterfowl and wetland habitat that reduces mosquito production and the need to use pesticides through Best Management Practices. He is recognized for his efforts on publications such as "Best Management Practices for Mosquito Control on California State Properties" (California Department of Public Health June 2008) and "Technical Guide to Best Management Practices for Mosquito Control in Wetlands" (Central Valley Joint Venture June 2004).

We are both members of the American Mosquito Control Association (AMCA). The AMCA is a not-for-profit professional association of approximately 1700 public health officials, academicians, county trustee/commissioners and mosquito control professionals dedicated to providing leadership, information and education leading to the enhancement of health and

quality of life through the suppression of mosquito and other vector transmitted diseases and the reduction of annoyance levels caused by mosquitoes and other vectors and pests of public health importance. This is accomplished, in part, through the use of federal and state registered public health pesticides.

We thank the members of both subcommittees for holding this important hearing regarding the regulatory burdens posed by the *National Cotton Council v. EPA* (6th. Cir. 2009) and to review related draft legislation. The decision of the 6th Circuit and its implementation by the US Environmental Protection Agency (EPA) have very significant adverse consequences on the ability of the mosquito control associations throughout our nation to protect the public health and welfare. Consequently, the subcommittees are to be commended for taking the time to review this important matter.

## **Background**

Mosquito control is critically important to public health in the United States. World-wide, mosquitoes cause more human suffering than any other organism – over one million people die from mosquito-borne diseases every year.<sup>1</sup> One such disease is malaria.<sup>2</sup> Although malaria was eradicated in the United States during the twentieth century through the use of pesticides, the Center for Disease Control (CDC) cautions that “the two species [of mosquito] that were responsible for transmission prior to eradication . . . are still widely prevalent; thus

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<sup>1</sup> Mosquito-Borne Diseases, American Mosquito Control Association, *available at* <http://www.mosquito.org/mosquito-information/mosquito-borne.aspx>.

<sup>2</sup> <http://www.cdc.gov/malaria/>.

there is a constant risk that malaria could be reintroduced in the United States.”<sup>3</sup> Currently, only malaria prevention techniques, including the spraying of insecticides that target mosquitoes, prevent malaria from reemerging in the United States.

Other mosquito-borne diseases are still present in the United States, including St. Louis Encephalitis,<sup>4</sup> Eastern Equine Encephalitis,<sup>5</sup> Western Equine Encephalitis,<sup>6</sup> Dengue Fever<sup>7</sup> and West Nile Virus.<sup>8</sup> There is no known vaccine or effective cure for any of these diseases; they are prevented only by controlling mosquito populations. In particular, West Nile Virus, the most severe outbreak of mosquito-borne disease in the United States in decades, continues to impact many parts of the country. Over 1,000 Americans have died, and over 10,000 hospitalized, some with severe permanent disabilities, from this mosquito-borne disease in the last eight years.

Since the essentially concurrent enactment of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and the Clean Water Act (CWA) in 1972, EPA and the states have treated these laws as complementary, rather than overlapping, mechanisms for regulating the risks of pesticides and water pollutants, respectively. However, beginning in 2001, several CWA citizen lawsuits were filed against entities that apply pesticides to or near water, and in particular against publicly-funded mosquito control programs, many of which are AMCA members. This led to considerable expense and the curtailment of necessary programs, as public health programs faced litigation risks.

In response to these suits, EPA published a series of interpretive guidance’s reiterating and clarifying the general inapplicability of the CWA to end-use pesticide applications.

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<sup>3</sup> See *Eradication of Malaria in the United States (1947-1951)*, available at <http://www.cdc.gov/malaria/history/index.htm#eradications>.

<sup>4</sup> [http://www.cdc.gov/ncidod/dvbid/arbor/sle\\_qa.htm](http://www.cdc.gov/ncidod/dvbid/arbor/sle_qa.htm).

<sup>5</sup> <http://www.cdc.gov/ncidod/dvbid/arbor/eeefact.htm>.

<sup>6</sup> <http://www.cdc.gov/ncidod/dvbid/arbor/weefact.htm>.

<sup>7</sup> <http://www.cdc.gov/ncidod/dvbid/dengue/index.htm>.

<sup>8</sup> <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>.

Moreover, in January 2003, AMCA filed a petition with EPA requesting that the Agency adopt a formal regulation clarifying the CWA obligations of those that apply pesticides to or near water in material compliance with FIFRA and its regulations. EPA responded to the AMCA petition through the publication of a proposed rule. Appropriately, after reviewing the status of pesticides specifically labeled for application to or near water, EPA issued a final rule, concluding that their application, when conducted substantially in accord with their FIFRA labels, did not constitute a “discharge of pollutants to waters of the United States.” EPA made clear that in the registration of pesticides, it requires registrants among other things, to provide data to establish the potential impacts from their use, including effects on water quality and aquatic organisms (*See for example 40 CFR Part 158 Subpart G*). Essentially the agency through its Office of Pesticide Programs conducts an impact assessment on water quality and non-target organisms including aquatic organisms under FIFRA in registering the products. To be eligible for registration, the data and information available to the EPA has to establish that when used in accordance with label requirements, the pesticide will not generally cause unreasonable adverse effects on the environment, including water quality and non target organisms. This effectively achieves the goals of the CWA.

Unfortunately, the 6th Circuit disagreed with EPA, and it invalidated the interpretive rule. The court determined that it was Congress’s intent in establishing the CWA to subject pesticides, whether chemical or biological products to its requirements. As a result, NPDES permits would be required for those pesticide applications that previously had been covered by the rule.

In response to the 6th Circuit decision, AMCA together with a host of other interested persons asked EPA to file an appeal with the U.S. Supreme Court. Despite the widespread impacts of the decision to the private sector, the federal government and state and municipal

programs, the Agency declined those requests. Instead, the Agency adopted a course of trying to develop a general permit to cover as many aquatic pesticide applications as possible, while recognizing that there would be some instances where an individual permit would be required. Through AMCA, by necessity we have tried to participate in the general permit development process, all the while maintaining that the 6th Circuit's decision incorrectly interpreted Congressional intent in establishing the CWA.

In the more than thirty-five years of administering the CWA, the EPA never issued an NPDES permit for the application of pesticides. By including pesticide applications under the CWA, the 6th Circuit decision greatly expands the number of entities that will now need an NPDES permit. Currently, the NPDES program encompasses approximately 520,000 permitted facilities. EPA estimates, at a minimum, the 6th Circuit decision will require an additional 365,000 so-called "applicators" to seek permits for approximately 5.6 million pesticide applications per year. This represents a nearly two-fold increase in the volume of NPDES permits to be issued. The paperwork burden has been estimated by EPA to be approximately \$50,000,000 per year, and AMCA has advised EPA why it believes that the burden will be far in excess of that estimate.

For mosquito control districts, the 6th Circuit decision has resulted in AMCA members trying to work with EPA and the states in determining how a permit process would be developed and implemented with the least degree of burden on mosquito control operations. Frankly, we recognized that the burden on our programs' limited resources including both financial and personnel would be significant. Further, we believe that there will be additional operational impacts on the districts' ability to use various pesticides which had been registered for use as public health pesticides, not because they would present any significant risk to water quality or



non-target organisms, but simply because there would now be another set of regulators who would be reviewing these products, and there was little likelihood that those regulators would simply adopt the reviews and conclusions of EPA's Office of Pesticide Programs. Bureaucracies do not function that way.

As we approach April 9, 2011, the date when the 6th Circuit mandate goes into effect, EPA has not yet released the final general permit. As a result, we and other mosquito control programs face a difficult choice. Either suspend pesticide applications thereby placing in jeopardy the public's health and welfare, or continue to use pesticides in carrying out our mission to protect the public. However in that latter situation, we place ourselves in substantial legal jeopardy from citizen suits. As you are aware, under the CWA, the civil penalties from such suits may be up to \$37,500 per day. To the extent that there may be those who may think that the potential for such suits is not real, you should be aware that immediately after the issuance of the 6th Circuit's decision, 21 mosquito districts in California received 60 day notices from private attorneys of their intent to sue those districts for failure to have an NPDES permit.

I am personally familiar with the threat of litigation to a mosquito control program under the CWA, because Suffolk County was sued under the act. While the County prevailed in District Court, the case was ultimately settled during the appeals process. However, defending the suit was a significant burden on the County, with millions of pages of documents produced during discovery, many depositions and some 14 hours I spent on the witness stand. I would not want to see any other program put through such a process as we conduct our work of protecting the public health and the environment, especially since this process resulted in no significant changes to the County's already stringent environmental protections.



If a NPDES permit is issued, the potential plaintiffs' attorneys also will likely focus on whether the district permittee has complied with all its terms and conditions. We also believe that there is a high likelihood of litigation against EPA by some activist groups challenging the provisions of any general permit issued as well as seeking to expand the instances which should be covered by an individual permit rather than a general permit. Consequently, it appears that absent Congressional clarification, we and the Agency will be stuck in this judicial morass for a quite lengthy, indeterminate time, with precious resources being devoted to justifying a CWA program which we have consistently maintained was never intended by Congress to cover pesticide applications that were in substantial compliance with labeled use directions.

#### **Impacts of the Decision of the 6th Circuit and its implementation by the EPA**

The draft pesticide general permit ("PGP") developed by EPA consists of nine parts: (1) Coverage, (2) Technology based effluent levels, (3) Water quality-based effluent levels, (4) Site monitoring, (5) Pesticide Discharge Management Plan (PDMP), (6) Corrective actions, (7) Annual reporting and recordkeeping, (8) EPA Contact information and mailing addresses, and (9) Permit conditions applicable to specific states, Indian country lands or territorial and tribal requirements. The AMCA provided 30 pages of comments during the comment period identifying problems with the draft PGP and questioning the rationale underlying many of its components.

AMCA also highlighted the Agency's gross underestimation of costs associated with permit implementation that would be borne by municipalities and private mosquito control entities. The AMCA provided an in-depth cost analysis based upon district input which projected that many of the 1105 smaller municipalities with limited resources would likely cease

operations if subject to the increased labor costs resulting from having to file Notices of Intent (NOI) to be subject to the permit and PDMP developments and amendments, preparation of annual reports necessary to satisfy state and regional water boards, and the purchase and use of surveillance equipment. This would leave local constituents without protection from mosquito-borne diseases. Of equal concern was the loss of on-site mosquito control capacity that could be called upon for relief operations, particularly after hurricanes or other natural disasters.

The development and deployment of a PDMP as stipulated in the PGP is of significant concern for the approximately 1100 smaller agencies worried that their lack of comprehensive surveillance and control assets might be cause for litigation. All 734 AMCA member districts practice control of mosquitoes based upon a demonstrated need, surveillance trapping, requests for service, and/or disease surveillance from the state or federal government. Specific methods employed may vary depending on resource availability. Use of biological controls and source reduction are included as program elements when deemed necessary, practical and economically feasible. However, the PDMP, as currently proposed, suggests certain Integrated Pest Management (IPM) measures could be mandated (for example, requiring a certain number of traps in a location or allowing the public to question and overrule through litigation the best professional judgment of marginally funded entities), or requiring impractical levels of habitat modifications or biocontrol measures that are beyond the capabilities of a great many of the smaller control entities. For example, habitat modification requires expertise of wetland hydrology, permitting, and species needs to name just a few of the requirements. Many mosquito control agencies would not have the resources to hire and retain a vector biologist to perform these functions. As a result, mosquito control will simply disappear in many of the less affluent rural areas of the country, adding an environmental justice dimension to the issue.

Furthermore, the IPM procedures required in the draft PGP will exceed many small jurisdictions' ability to perform over the long term without additional sustainable funding sources. While small entities could develop a preliminary IPM program as outlined in the PGP with funding assistance, the programs should be monitored to provide information to improve performance and lessen chemical usage in subsequent years. This is equivalent to an "adaptive management" approach where data are collected during initial start up and used to incrementally improve management efficacy in successive years. Funding for this activity, however, is not available. Currently, many public health departments are experiencing cuts in their operating budgets, initiating furloughs, leaving vacancies unfilled, eliminating positions, etc.

By way of example, one mosquito control program in North Carolina estimates it will need to quadruple its annual budget (from \$300,000.00 to little over \$1.6 million dollars) to fully comply with provisions stipulated for a PDMP. Frankly, there is no funding from the counties or the states to perform these activities. North Carolina is not alone in experiencing financial difficulties, and many programs in other states would be forced to shut down or reduce their control measures to comply with the draft PGP.

Indeed, the *administrative costs* alone may be beyond the capabilities of many mosquito control programs. Once a program has developed acceptable NOI's, PDMP's and Annual reports and have them on file, the maintenance costs will be substantial due to the inevitable changes in program elements required from complying with the PGP. In addition, there are PDMP requirements that appear reasonable at first glance, but are simply impractical or impossible to perform. For example, the draft PGP requires the permit holder to "Use the lowest effective amount of pesticide product per application". While this seems simple enough, upon further investigation it is clear that making such a determination is fraught with problems. First,

current federal law under FIFRA prohibits using any pesticide that exceeds the authorized labeled amount. Second, how would “use the lowest effective amount” be determined under field conditions? We know from years of experience that adult mosquito control can have field failures at the even the highest labeled rate due to a myriad of extenuating factors. Additionally, this requirement tacitly assumes that districts would knowingly use a higher amount of product than necessary to effect control. These products are extremely expensive and AMCA is not aware of any district possessing the excess funds needed to subsidize application rates at the highest level approved by the label unless they are required to provide adequate control. Third, this stipulation appears eminently well-suited for litigation, as districts can be challenged to prove whether or not they have used the “least amount of effective product”.

The requirement to illustrate a “Pest Management Area Determination” and develop a “pest management strategy” for each pest management area is problematic. Individual mosquito control districts may have over 1000 different sites within their jurisdictions that are known to produce mosquitoes, and each site could have distinct features. Are permittees thus required to evaluate every site? How do we access environmental conditions within an application area sufficiently enough to comply with the permit? A representative site is generally used to assess conditions when we treat several thousand areas in an evening for adult mosquitoes, but we know from experience that meteorological conditions may vary considerably over such large areas. How much variance would be allowed before litigation is initiated by anti-pesticide advocates is a very real concern for all control agencies.

The great monitoring unknown under the PGP is the degree of ambient water quality sampling. Monitoring for larvicides such as *Bacillus thuringensis israelensis* and other biocontrols will be difficult since these are natural soil organisms and separating application

products from background “noise” will be exceedingly problematic. Costs will vary widely for monitoring programs of other products depending on the requirements of a permit, but they can be expected to be substantial. For example, the NPDES permit currently being proposed in California requires both ambient water quality monitoring and toxicity testing for mosquito products used to control adult mosquitoes. The need for this permit was generated as a direct result of the 6th Circuit decision. The cost of performing this activity statewide is estimated to be \$1 million dollars annually. Only \$10 million dollars of adult mosquito control pesticides are used by California agencies on an annual basis, meaning 10% of local tax resources will be used in an attempt to comply with the ambient monitoring conditions of the permit, and this is just for the adult mosquito control products. It is fortunate that the California State Water Control Board is allowing districts to form coalitions to perform the monitoring. Without this option *each* control district would be required to perform the same monitoring program currently being proposed by the coalition, meaning each district could face the million dollar monitoring tag on their own. This alone would exceed many districts total operational revenues. To further complicate this matter, the proposed monitoring program still has to get approval from California regional boards and USEPA Region 9, which may place further monitoring requirements as a condition of the permit. We believe that if Congress reaffirms the inapplicability of the CWA to pesticide applications, the state would likewise decline to assert a need for NPDES permits.

## **Conclusion**

Congress should clearly articulate its original intent with respect to the CWA and confirm that mosquito control activities conducted in substantial accordance with FIFRA are exempt from CWA NPDES requirements. The NPDES requirement in these circumstances provides no meaningful environmental benefit, but rather represents a significant obstacle to protecting public health and welfare. Imposing NPDES requirements on aquatic pesticide users will be a poor return-on-investment in terms of achieving any environmental improvements or gains. In the current economic situation, Congress should examine instances where needless burdens are placed on our nation's citizens, as well as on state, county and municipal governments. This is one such instance. Somewhat perversely, without Congressional intervention, the current situation will result in providing less protection to our citizens. It makes more sense to restore the status quo that satisfactorily existed for more than 30 years prior to the decision of the 6th Circuit and recognize that the beneficial application of pesticides does not represent an activity that should be regulated under the CWA. Instead, comprehensive effective regulation of pesticide products, including impacts on water and non target aquatic organisms, can and does occur under FIFRA. If Congress adopts such a position, water quality will continue to be maintained at a high level and a grave affront to environmental justice will have been avoided.